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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,772	09/29/2003	Keiji Moriyama	3673-0157P	7535
2292	7590	03/27/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			LEE, EDMUND H	
			ART UNIT	PAPER NUMBER
			1732	

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/671,772	Applicant(s) MORIYAMA ET AL.	
	Examiner EDMUND H. LEE	Art Unit 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB.08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### **DETAILED ACTION**

1. The disclosure is objected to because of the following informalities: there are numerous spelling and grammatical errors in the specification, e.g. pg 1, ln 10. Please review the entire specification for mistakes.

Appropriate correction is required.

2. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "a bowl-shaped half shell" (cl 1, ln 2) is indefinite because the scope and breadth of the term "bowl-shaped" is unascertainable. The phrase --hemispherical half shells-- is suggested.

The phrase "a bowl-shaped half shell" (cl 1, ln 2) is indefinite because there should really be more than one half shell formed. The remaining steps of claim 1 require the use of more than one half shell.

The phrase "two half shells" (cl 1, ln 4) is indefinite because it is unclear whether or not the half shells are related to the half shell formed in lines 2-3 of the claim 1. If they are the same then it should be positively and clearly recited as such.

The phrase "the half shells" (cl 1, ln 5) is indefinite because it is unclear whether or not the shells are the shells mentioned in line 4 or other half shells. If they are the half shells mentioned in line 4 then it should be positively and clearly recited as such.

The third step of claim 1 (cl 1, ln 8) is indefinite because it is unclear as to whether or not the mold is clamped with something inside. If the mold is clamped with

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the solid core and the two half shells therein then it should be positively and clearly recited as such. It should be noted that the specification supports clamping the mold while the core and two half shells are mounted in the hemispherical cavity of the lower portion.

The phrase "and causing the excessive thermoplastic resin composition to flow out of the spherical cavity" (cl 1, lns 12-14) is indefinite because it is unclear as to what causes the flow. The specification supports the flowing being caused by heating and pressurizing of the resin composition during the mold clamping. See page 5, 3<sup>rd</sup> paragraph.

The fifth step of claim 1 is indefinite because it is unclear as to whether or not it is related to the fourth step. If the fifth step is performed after the fourth step then it should be positively and clearly recited as such. The specification supports the fifth step occurring after the fourth step. See page 6, 1<sup>st</sup> full paragraph.

The phrase "wherein...put at the second step" (cl 1, lns 19-20) is indefinite because it is idiomatically incorrect.

The phrase "set to be 105% to 120%" (cl 1, ln 20) is indefinite because it is unclear as to whether or not it is set. The phrase "to be" should be replaced with --is--.

Correction is required.

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following US patents show the state of the art: 6093357; 4501715; 3819795; 6905647; and 6846442.

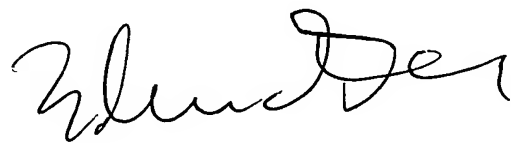
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDMUND H. LEE whose telephone number is 571.272.1204. The examiner can normally be reached on MONDAY-THURSDAY FROM 9AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 571.272.1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EDMUND H. LEE  
Primary Examiner  
Art Unit 1732

EHL

  
3/15/06